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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,618	09/18/2003	Bun-Yeoul Lee	MUTU11.00CP1	1209

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EXAMINER

PASTERCZYK, JAMES W

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,618

Applicant(s)

LEE ET AL.

Examiner

J. Pasterczyk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-10 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-10 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/526,035.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. This Office action is in response to the RCE papers and argument filed 4/14/05.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 4-10 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of McNally, Lee II, Sancho Royo, or Llinas as cited in and as discussed in the final rejection of 10/15/04.
4. Applicant's arguments filed 4/14/05 have been fully considered but they are not persuasive.

Applicants first note in their argument that all elements of a claim must be taught or suggested by the prior art, with emphasis on “taught”. The examiner would like to emphasize “suggested” instead since this appears to be a looser standard, and since these two terms are used in the alternative, suggestion of a particular element is sufficient under the prevailing case law.

As to the particular claim limitations applicants allege are not taught or suggested, one is the number of methylene groups between the Cp group and the Si-O oxygen atom of the silica surface in the present claims; this is embodied in the value of *a*, which in the present claims may be 4-8. However, the examiner notes that in McNally such values may be two and in some of its embodiments up to a five carbon chain is found between the Cp group and the methoxy group. Although the English abstract of Lee II does not disclose a value for *n*, from the Korean specification it appears that this value may be six (p. 9-5, third line from the end). Sancho Royo discloses various species of groups that meet this limitation (col. 3, l. 15-28), as does Llinas (paragraphs 0038-0041). Thus this variable does in fact appear to be sufficiently “taught” or “suggested” by the prior art.

Applicants also argue that the prior art does not sufficiently teach or suggest that the silica used in the prior art has been dehydroxylated, which then would result in the particular surface species presently claimed. However, McNally discloses use of a dried silica (examples 4, 5, 10), as does Sancho Royo (col. 6, l. 23-28), and Lee II (English abstract). One of ordinary skill in the art would have recognized that calcinations of silica would have removed surface hydroxyl groups by dehydration, resulting in surface oxygen atoms bridging between silicon atoms, the same surface species as applicants use. Since the surface groups of the prior art are identical to those of the present invention, one of ordinary skill in the art would have expected their reactivity with similar groups on the cyclopentadienyl ligands of metallocenes to be similar.

Regarding the alleged lack of motivation to make any changes to the prior art to result in the present invention, McNally at col. 1, l. 13-23, Sancho Royo at col. 1, l. 17-27, Lee II in the English abstract, and Llinas in paragraph 0002, all disclose motivations to alter their inventions that are the same as those unexpected benefits applicants assert are solved by their invention.

Regarding the matter presented in the executed rule 132 declaration of 2/18/05 as discussed in the response of 4/14/05, the examiner first notes that the structures found in paragraph 4 are not commensurate with those of the present claims since there are no methylene groups between the Cp ring and the oxygen atom of the side group, i.e. $a = 0$. None of the structures of the examples found in tables 1 and 2 are actually fully disclosed, hence it is not possible to ascertain whether or not they in fact correspond to the present claims or the prior art. Nor is it clear what particular metallocene compounds from the prior art were used as comparisons; paragraph 7 of the declaration only states that "a catalyst prepared according to the method of" the individual pieces of prior art was made and tested for its catalytic activity only,

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not for any of the other alleged benefits asserted for the present claims. Thus it is not possible to compare the present claims to the prior art or even ascertain whether the comparison examples corresponded to the closest prior art species of metallocene compounds of record. Thus the rule 132 declaration is not probative of the patentability of the present claims.

5. This is an RCE of applicant's earlier application of the same serial number. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Pasterczyk

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4/25/05



J. A. LORENZO
SUPERVISORY PATENT EXAMINER